

Do Violations of Global Beliefs and Goals Drive Distress and Meaning Making Following Life Stressors?

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Abstract

Theoretical and treatment approaches posit that violations of beliefs and goals by stressful experiences drive distress and meaning making. However, empirical work examining this notion is limited. Accordingly, we tested violations' role in driving distress and meaning-making using repeated assessments among 180 undergraduates coping with a recent significant stressor. On four occasions over two months, we collected data on belief and goal violations, distress, and meaning making. A within-person analytic approach showed that when participants' violations changed, their distress and meaning making also changed in the same direction. Additionally, violations had a unique association with meaning making, independent of distress. Results suggest that experiencing discrepancy between a stressor and one's beliefs and goals may be distressing and lead to efforts to reduce that discrepancy. Additional research on how individuals successfully resolve violations could improve understanding and treatment of individuals dealing with significant stressors.

Keywords

meaning making, stress, coping, violations, trauma

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The meaning making model is a prominent theoretical account of how people respond to major life stressors (Park, 2010, 2017). A key aspect of this model is the violation of beliefs and goals by stressors. The model posits that people hold core belief and goals, referred to as global meaning, which they rely on to make sense of their lives and the world (e.g., belief-in-God; belief regarding the world being just). When major stressors occur, people make appraisals regarding the stressor, referred to as situational meaning (e.g., what caused it; what it means). Violations occur when situational meaning is inconsistent with or discrepant from global meaning (e.g., a life event makes one question whether God exists; Park, 2017). According to the model, such violations of one's beliefs and goals create distress and drive efforts to make meaning of the stressor. Meaning making efforts seek to "fit" the event with one's global beliefs and goals, by either changing one's beliefs and goals, or by changing one's views of the situation (e.g., concluding, "There is no God," or "God has a bigger plan for me;" Neimeyer et al., 2014). Thus, the meaning making model posits violations as the key factor driving distress and meaning making in the wake of stressful life events.

Unfortunately, empirical examinations testing such a role of violations is limited. Although many studies show that survivors of major stressful experiences have more negative global beliefs (LoSavio et al., 2017), or retrospectively report having examined their beliefs due to a past stressful experience (Cann et al., 2010), most such studies do not explicitly assess if the experience violated individuals beliefs and goals and whether that is associated with more distress and meaning-making. While a few studies have *explicitly* assessed violation of beliefs and goals — for example, using the Global Meaning Violation Scale, which explicitly asks participants the extent to which an index stressor violated many commonly held beliefs and goals (Park et al., 2016) — these studies are limited by cross-sectional designs and either did not assess meaning making (e.g., Exline et al., 2011) or assessed it simplistically (e.g., with a single item; Lepore & Kernan, 2009). Thus, there is a need for longitudinal studies that explicitly assess violations and their association with distress and meaning-making. Further, these associations should be assessed among individuals actively adjusting to a recent stressor (as opposed to a past stressor, which is perhaps no longer distressing and eliciting coping processes).

Present Study

To address existing gaps, the present longitudinal study assessed among individuals actively adjusting to a recent stressor, violations, distress, and meaning-making, four times across a two-month period. We used a within-person analytic approach as it can provide more robust evidence regarding associations between violations and distress and meaning-making. Namely, longitudinal

within-person analyses, which model violations as a variable that changes across time and examine how such changes relate to changes in distress and meaning making, provide a more robust test of whether violations drive distress and meaning making. Such a within-person approach is advantageous as “omitted and confounding variables are less likely to be a problem when analyses focus on how and why people change over time than on how people differ from one another.” (Bolger & Laurenceau, 2013, p. 31). The within-person approach allows subjects to serve as their own controls, thereby ruling out confounds related to individual differences.

Our primary research question thus asked: *Are changes in violations, relative to each participant’s own levels of violations, associated with corresponding changes in distress and meaning making?* We hypothesized that changes in violations would be associated with changes in distress and meaning making in the same direction. Secondly, we also examined *whether the predictive power of violations on meaning making was independent of distress*. In other words, is distress necessary for a violation to drive meaning making? Studies of major stressors invariably show that in their aftermath, people experience both distress and meaning making (Park, 2010; Thompson & Janigian, 1988). Such findings might be taken to mean that violations are distressing, hence, people engage in meaning making attempts. However, lab-based studies have shown that trivial stressors, which evoke no noticeable or reported distress, still result in meaning making efforts (Park & George, 2018; Proulx & Heine, 2008; Proulx & Inzlicht, 2012), raising the possibility that discrepancies to beliefs and goals may drive meaning-making efforts independent of any experienced distress. We accordingly hypothesized that violations would be associated with meaning making even after controlling for distress.

Given the multifaceted nature in which meaning-making has been conceptualized in past research, we operationalized meaning-making comprehensively. It is thought that some meaning making processes are deliberate and effortful, such as reappraising the event to make it appear more positive, trying to accept the stressor, drawing on one’s religious beliefs and practices, and examining and expressing one’s feelings about the stressor (Park, 2010; Park & George, 2013). Other meaning making processes are thought to be more automatic, particularly intrusive thoughts (Creamer et al., 1992; Greenberg, 1995; Horowitz, 1986; Park, 2017). Horowitz (1986) suggested that trauma survivors’ intrusive thoughts reflect attempts to integrate information about events that were incompatible with their previously held beliefs. Thus, several studies have measured meaning making as intrusive thoughts (e.g., Costa-Requena et al., 2011; Salsman et al., 2009). Accordingly, in the present study, we assessed meaning making comprehensively as intrusive thoughts regarding the stressor as well as positive reinterpretations, acceptance, turning towards God, and emotional processing and expression in relation to the stressful event.

Methods

This study utilized a longitudinal design with repeat assessment of participants. Participants were assessed a total of four times, with three weeks in between each assessment. Such a 4-wave repeat assessment design was used due to its ability to better capture change in variables across time, allowing for a more rigorous examination of theorized causal associations (Bolger & Laurenceau, 2013). The sample was recruited through the Psychology Department participant pool at a large university in the Northeastern United States.

Procedure

Participants were screened during mass testing at the beginning of the semester using the following two questions: “Have you had a very stressful event or situation happen to you in the last three months?” and “If you answered ‘yes,’ how stressful is this event or situation to you now?” For the first question, participants responded *yes* or *no*; for the second question, they responded using a 7-point scale ranging from 1 (*not at all stressful*) to 7 (*extremely stressful*). Participants who indicated experiencing a stressor and rated it as at least a 3 (*somewhat stressful*), were eligible to participate in the present study. In addition to the above two questions, during prescreening, participants were also given the opportunity to indicate in an open-ended format what their stressor was.

Participants signed up for the study online, and all data were collected via online surveys. Time 1 data collection occurred within the first three weeks of the semester on predetermined survey completion days. Subsequent data collections occurred every three weeks from the day of the Time 1 data collection. Participants were emailed the survey on the survey completion days and were given 24 hours to participate. Thus, emails were sent to each participant on four different data collection days across the semester, with three weeks in between each data collection day.

A total of 180 participants were enrolled in the study. For Time 1, 2, 3, and 4, valid data was present for 177, 164, 155, and 148 participants, respectively. Most participants were female (76%) and identified as white/Caucasian (75%), and mean age was 18.84 ($SD = 1.34$; see Table 1 for more details). For descriptive purposes, participants’ reported stressors were coded using a categorization scheme previously developed and used to code undergraduate stressors (Park et al., 2016, Study 3). Each stressor was coded as falling into one of seven categories (Table 1). The most frequently reported stressor category was college, academics, extracurricular activities, or transition/moving (27.7%), followed by illness, injury, or accident (20.9%), other (15.3%), death and loss (11.3%); social conflict (6.8%); abuse, domestic violence, or intimate relationship issues (5.6%) and legal problems (0.6%).

Table 1. Sample and Stressor Characteristics (N = 177).

Variable	<i>n</i>	%
Sex		
Female	135	76.3%
Male	40	22.6%
Race/Ethnicity		
White/Caucasian	132	74.6%
Asian/Pacific Islander	20	11.3%
Latino/Latina	11	6.2%
Black/African American	5	2.8%
“Other”	7	4%
Stressor		
College, academics, extracurricular activities, or transition/moving	49	27.7%
Illness, injury, or accident	37	20.9%
Death and loss	20	11.3%
Social conflict	12	6.8%
Abuse, domestic violence, or intimate relationship issues	10	5.6%
Legal problems	1	0.6%
Other (more than one reported stressor; stressor that did not fall into the other categories)	27	15.3%
Did not provide sufficient information for coding	21	11.9%
Age	Mean = 18.84 (SD = 1.33)	

Note. Missing observations – Sex (2), Race (2), Age (2).

Materials

Participants were instructed that they qualified to be in the current study as they indicated on the prescreener that they experienced a “stressful life event or situation” in the past three months. They were directed to answer the stressor-related survey questions in relation to this event. All study variables were repeatedly assessed at all four time points.

Violations were assessed using the Belief Violations and Intrinsic Goal Violations subscales of the Global Meaning Violation Scale (GMVS; Park et al., 2016). The GMVS explicitly asks participants the extent to which their stressor violates their beliefs and goals. The five-item Belief Violations subscale pertained to beliefs about fairness and justice, control, and benevolence and safety (e.g., How much does the occurrence of this stressful experience violate your sense of the world being fair or just?). The five-item Intrinsic Goal Violations subscale asked participants to indicate how much their stressful experience interfered with their ability to accomplish the listed goals of “social support and community,” “self-acceptance,” “physical health,” “inner peace,” and “intimacy (emotional closeness).” Participants indicated how much violation

they currently perceived on a 5-point scale from 1 (*not at all*) to 5 (*very much*). The belief items and goals items were averaged separately to arrive at belief violations and goal violations scores, with higher scores indicating greater violations (Cronbach's alpha provided in Table 2).

Measures of Distress. A face-valid single distress item, "How distressful is the stressful event or situation to you now?" was administered to participants to capture a general sense of distress at each assessment. The item was rated on a 7-point scale ranging from 1 (*not at all distressful*) to 7 (*extremely distressful*). Similar single-item measures have been used in previous studies (e.g., Park et al., 2016, Study 3).

Depressive symptoms and anxiety were assessed using subscales from the widely used Depression, Anxiety and Stress Scales-21 (DASS-21; Lovibond & Lovibond, 1995). The Depression and Anxiety subscales consist of seven items each, which describe various features of depression (e.g., "I felt downhearted and blue") and anxiety (e.g., "I felt scared without any good reason"), respectively. Participants rated the extent to which each item applied to them over the past three weeks on a 4-point scale from 1 (*never*) to 4 (*always*). Two separate mean scores were computed using the Depression and Anxiety items.

Measures of Meaning Making. As noted above, meaning making comprises a number of different cognitive activities with the aim of aligning situational and global meaning (see Park, 2010). In order to capture the different intrapsychic processes that comprise meaning making, we selected multiple measures to include both automatic and effortful meaning making. The eight-item Intrusions subscale of the Impact of Event Scale-Revised (IES-R; Weiss & Marmar, 1997) was used to measure involuntary intrusive thoughts. This subscale measures the extent to which the stressful event intrudes on one's experience, assessing intrusions such as involuntary thoughts and feelings or images regarding the event (e.g., "Other things kept making me think about it"). Participants were instructed to respond to the items based on their experience over the last three weeks. Responses were rated on a 5-point scale ranging from 0 (*not at all*) to 4 (*extremely*), and averaged to get an intrusive thoughts score.

The Acceptance, Positive Reinterpretation and Growth, and Religious Coping subscales of the COPE Inventory were also used (Carver et al., 1989). The COPE is a widely used measure of the different ways in which people respond to stress. Sample items for the Acceptance, Positive Reinterpretation, and Religious Coping subscales include "I tried to get used to the idea that it happened," "I looked for something good in what was happening," and "I prayed more than usual," respectively. The Emotional Processing and Emotional Expression subscales from the Emotional Approach Coping Scale were also used (Stanton et al., 2000). Sample items from the Processing and Expression subscales include "I acknowledged my emotions" and "I let my

Table 2. Descriptive Statistics, Reliabilities and Intraclass Correlations.

	Mean (SD)				Cronbach's alpha	Intraclass correlations
	Time 1	Time 2	Time 3	Time 4		
1) Belief violations (GMVS)	2.67 (.98)	2.52 (.98)	2.56 (1.02)	2.28 (.95)	.84	.64
2) Goal violations (GMVS)	2.70 (.97)	2.57 (1.05)	2.47 (1.02)	2.25 (.95)	.79	.56
3) Stressor-related distress	4.61 (1.42)	3.67 (1.61)	3.37 (1.66)	2.94 (1.57)	–	.36
4) Anxiety (DASS)	1.80 (.62)	1.69 (.54)	1.68 (.62)	1.59 (.59)	.82	.69
5) Depression (DASS)	1.90 (.68)	1.81 (.66)	1.79 (.66)	1.68 (.61)	.89	.64
6) Intrusive thoughts (IES-R)	2.98 (.98)	2.51 (1.03)	2.35 (1.00)	2.10 (.97)	.91	.48
7) Acceptance (COPE)	3.02 (.70)	2.84 (.75)	2.67 (.79)	2.58 (.87)	.81	.46
8) Positive reinterpretation (COPE)	2.64 (.80)	2.62 (.79)	2.44 (.79)	2.37 (.84)	.80	.53
9) Religious coping (COPE)	1.72 (.94)	1.71 (.95)	1.69 (.93)	1.72 (.97)	.94	.84
10) Emotional processing (EACS)	2.61 (.72)	2.49 (.77)	2.34 (.75)	2.27 (.85)	.77	.52
11) Emotional expression (EACS)	2.43 (.92)	2.31 (.91)	2.25 (.87)	2.11 (.92)	.92	.55

Note. SD = standard deviation; Cronbach's alpha from Time 1 assessment; no Cronbach's alpha computed for distress as it is a single-item measure; GMVS = Global Meaning Violation Scale; DASS = Depression, Anxiety and Stress Scales-21; IES-R = Impact of Event Scale-Revised; COPE = COPE Inventory; and EACS = Emotional Approach Coping Scale.

feelings come out freely,” respectively. Each of the above subscales consisted of 4 items and were rated on a 4-point scale ranging from 1 (*I didn't do this at all*) to 4 (*I did this a lot*). Participants were instructed to indicate how much they used each way of coping with their stressor in the previous three weeks.

Data Analytic Plan

Descriptive statistics (means and standard deviations) were used to summarize variable scores across study duration. Pearson correlation was used to provide a preliminary examination of associations between variables at baseline. To address the primary research questions, multi-level modeling was used, as it allows for estimation of within-person effects using data from all of the time-points. In separate models predicting distress and meaning making variables, belief and goal violations were entered as time-varying level 1 predictors (Curran & Bauer, 2011). Further, belief and goal violations were person-mean-centered, such that each timepoints' score reflected the change in belief and goals violations relative to what was average for that person across all of the timepoints (Bolger & Laurenceau, 2013; Curran & Bauer, 2011). The coefficients for belief and goal violations thus tested whether as participants' violations changed from timepoint to timepoint whether there was a corresponding change in their distress and meaning making at those timepoints. In all models, a time variable was also included as a predictor to control for the effects of time (Bolger & Laurenceau, 2013). In the context of adjustment, including time is particularly important as time can be expected to affect outcomes due to the natural recovery process following stress exposure. Controlling for time accounted for the alternative explanation that any identified association between violations and distress/meaning making are due to a more general recovery process occurring over time. The time variable was centered at baseline (coded 0, 1, 2, and 3).

Results

See Table 2 for descriptive information on variables across the study span. Mean belief and goal violations at baseline were 2.67 and 2.70 respectively, which was located near the mid-point of the response scale ranging from 1 (*not at all*) to 5 (*very much*). Thus, on average, participants indicated that their beliefs and goals were at least moderately violated by the stressor. The mean scores on the other study variables painted a similar picture. For example, stressor-related distress at baseline was 4.61 — which was rated on a 7-point scale ranging from 1 (*not at all distressful*) to 7 (*extremely distressful*) — indicating that at the beginning of the study, as a whole, participants found their stressor to be at least “moderately stressful.” Descriptives showed that across the course of the study, average levels of violations and distress and meaning

making decreased, indicating that the study on average captured participants during an active coping phase with their stressor.

As preliminary analyses, intercorrelations among study variables at baseline were computed (Table 3). Belief and goal violations were significantly associated with all distress variables. Belief violations was significantly associated with intrusive thoughts ($r = 0.45, p < 0.01$), but not with the other meaning making variables. Goals violations was significantly associated with intrusive thoughts ($r = 0.58, p < 0.01$) and emotional processing ($r = 0.24, p < 0.01$), but not with the other meaning making variables.

Primary Analyses

To test whether violations were related to distress, multi-level models were computed predicting each of the distress variables: stressor-related distress, anxiety and depressive symptoms (Table 4). Time and person-mean-centered belief and goal violations were entered as level 1 predictors. The coefficient for time was significant and negative in all three models suggesting that over time, distress, anxiety and depression decreased. Controlling for time and belief violations, within-person changes in goal violations was associated with a corresponding change in the same direction in distress, anxiety, and depression. Controlling for time and goal violations, within-person changes in belief violations was associated with a corresponding change in the same direction in depression; however, it was not associated with anxiety nor distress.

To test whether violations were related to meaning making, six models were computed, one predicting each of the meaning making variables, with time and person-mean-centered belief and goal violations as level 1 predictors (Table 5). Time was a significant predictor in all but one of the models (religious coping), indicating that participants' use of those specific meaning making processes decreased over the study span. Changes in belief violations was associated with a corresponding change in the same direction in intrusive thoughts, religious coping, and emotional expression. It was not significantly associated with acceptance, positive reinterpretation, or emotional processing. Changes in goal violations was associated with a corresponding change in the same direction in intrusive thoughts, but not with acceptance, positive reinterpretation, religious coping, emotional processing, or emotional expression.

To test whether the association of violations with meaning making was independent of distress, the above models predicting meaning making variables were repeated with distress variables as additional control predictors. Thus, six models were computed, one predicting each of the meaning making variables, where time and person-mean-centered belief and goal violations were level 1 predictors, and the three distress variables were entered as additional person-mean-centered level 1 predictors (Table 6). Controlling for distress did not seem to drastically change the patterns of associations: belief violations continued to

Table 3. Intercorrelations From Time 1.

	1	2	3	4	5	6	7	8	9	10	11
1) Belief violations	1	.398**	.262**	.301**	.394**	.454**	.138	.005	.089	.067	.078
2) Goal violations		1	.323**	.397**	.529**	.584**	.144	.138	.022	.238**	.067
3) Stressor-related distress			1	.225**	.251**	.518**	.134	-.068	-.090	.077	.015
4) Anxiety				1	.680**	.485**	-.018	.041	-.010	.049	.013
5) Depression					1	.471**	-.025	-.069	-.043	-.012	-.032
6) Intrusive thoughts						1	.197**	.079	.041	.246**	.152*
7) Acceptance							1	.466**	.232**	.430**	.232**
8) Positive reinterpretation								1	.316**	.500**	.278**
9) Religious coping									1	.247**	.083
10) Emotional processing										1	.658**
11) Emotional expression											1

* $p < 0.05$.** $p < 0.01$.

Table 4. Multi-Level Models Predicting Distress Variables.

Outcome	Level I predictor	<i>b</i>	<i>p</i>
Stressor-related distress	Intercept	4.38	<.001
	Time	-.48	<.001
	Belief violations	.22	.05
	Goal violations	.32	<.01
Anxiety	Intercept	1.77	<.001
	Time	-.05	<.01
	Belief violations	.02	.51
	Goal violations	.06	.02
Depression	Intercept	1.87	<.001
	Time	-.04	<.05
	Belief violations	.07	<.05
	Goal violations	.10	<.01

Note. *b* = *b* coefficient; *p* = significance value.

Table 5. Multi-Level Models Predicting Meaning Making Variables.

Outcome	Level I predictor	<i>b</i>	<i>p</i>
Intrusive thoughts	Intercept	2.81	<.001
	Time	-.22	<.001
	Belief violations	.19	<.05
	Goal violations	.34	<.001
Acceptance	Intercept	2.98	<.001
	Time	-.13	<.001
	Belief violations	.08	.16
	Goal violations	.02	.66
Positive reinterpretation	Intercept	2.64	<.001
	Time	-.08	<.001
	Belief violations	.11	.05
	Goal violations	-.03	.53
Religious coping	Intercept	1.69	<.001
	Time	.01	.41
	Belief violations	.11	<.001
	Goal violations	.03	.28
Emotional processing	Intercept	2.56	<.001
	Time	-.09	<.001
	Belief violations	.12	.06
	Goal violations	.10	.05
Emotional expression	Intercept	2.39	<.001
	Time	-.07	<.01
	Belief violations	.15	<.05
	Goal violations	.03	.55

Note. *b* = *b* coefficient; *p* = significance value.

Table 6. Multi-Level Models Predicting Meaning Making Variables, While Controlling for Distress.

Outcome	Level I predictor	<i>b</i>	<i>p</i>
Intrusive thoughts	Intercept	2.67	<.001
	Time	-.11	<.001
	Stressor-related distress	.22	<.001
	Anxiety	.04	.59
	Depression	.18	<.05
	Belief violations	.12	.05
	Goal violations	.26	<.001
Acceptance	Intercept	3.0	<.001
	Time	-.15	<.001
	Stressor-related distress	-.01	.58
	Anxiety	.07	.45
	Depression	-.08	.37
	Belief violations	.05	.34
	Goal violations	.05	.39
Positive reinterpretation	Intercept	2.66	<.001
	Time	-.10	<.001
	Stressor-related distress	-.04	.211
	Anxiety	.25	<.01
	Depression	-.21	<.01
	Belief violations	.11	<.05
	Goal violations	-.01	.85
Religious coping	Intercept	1.69	<.001
	Time	.01	.59
	Stressor-related distress	-.01	.63
	Anxiety	.09	.10
	Depression	-.03	.46
	Belief violations	.12	<.01
	Goal violations	.03	.31
Emotional processing	Intercept	2.54	<.001
	Time	-.08	<.001
	Stressor-related distress	.01	.73
	Anxiety	.12	.11
	Depression	-.08	.27
	Belief violations	.10	.12
	Goal violations	.11	<.05
Emotional expression	Intercept	2.39	<.001
	Time	-.08	<.01
	Stressor-related distress	-.01	.72
	Anxiety	.18	.05
	Depression	-.15	.07
	Belief violations	0.14	<.01
	Goal violations	0.05	.42

Note. *b* = *b* coefficient; *p* = significance value.

be significantly associated with religious coping and emotional expression; goal violations continued to be significantly associated with intrusive thoughts. The associations between belief violations and positive interpretation, and goal violations and emotional processing, which only approached significance in the previous models, were now significant. Finally, the previously significant association between belief violations and intrusive thoughts now fell short of meeting criteria for significance.

Discussion

The present study examined the notion that violations of global beliefs and goals by a stressor drives distress and meaning making. Results generally supported this notion, showing that changes in participants' belief and goal violations were associated with corresponding changes in the same direction in certain distress and meaning making variables. These findings build on past research that has shown these links between violations and distress and meaning making (e.g., Park et al., 2016). The current study provides more robust evidence for these links owing to its explicit assessment of violations, longitudinal within-person analytic approach, comprehensive assessment of meaning-making, and examination of individuals actively adjusting to a stressor.

Results showed that even after accounting for time, within-person changes in belief violations was associated with corresponding changes in depression, and within-person changes in goal violations was associated with corresponding changes in stressor-related distress, anxiety, and depression. Such associations are consistent with the notion that when people experience less violation from their stressors, they experience less distress and engage in less meaning making (Park, 2010; Proulx & Inzlicht, 2012). These within-person effects, where subjects served as their own controls, provide relatively stronger evidence that violations drive distress and meaning making, given that many confounding explanations related to between-person differences can be ruled out (Bolger & Laurenceau, 2013). Further, controlling for time in the models suggests that the identified relationships are likely not merely due to a pattern of correlated change between the variables attributable to the passage of time.

Not all meaning making processes were predicted by belief or goal violations (or both). Acceptance was not predicted by either belief or goal violations (nor by distress variables). Acceptance thus stood apart as a meaning making process from the others, occurring independent of an individual's perceived violations and distress. This finding is important; previous research on violations and coping has typically excluded acceptance coping from consideration (e.g., Park, 2008; Park et al., 2016); future research is needed to understand the functioning of a broader range of meaning making strategies. Understanding acceptance strategies may be particularly helpful with certain types of stressors, such as losses (Davis et al., 2016). For the meaning making processes of positive

reinterpretation and religious coping, goal violations was not a predictor, but belief violations was, possibly due to the more cognitive nature of these processes. These results are consistent with previous research showing inconsistent associations between belief and goal violations and different kinds of meaning making (e.g., Park, 2008). Much more research is needed to determine what predicts these differential associations.

Comparing the predictive power of belief and goals violations, belief violations was significantly associated with three meaning making processes (intrusive thoughts, religious coping, and emotional expression), whereas goal violations was only significantly associated with one (intrusive thoughts). Thus, belief violations may possibly play a more important role in driving meaning making, relative to goal violations. Further research is needed on this issue; if shown in future work, this relative difference in importance would support past theoretical work on meaning making, which has tended to focus on how major stressors and traumas disrupts beliefs as opposed to goals (e.g., Foa et al., 1999; Janoff-Bulman, 1989). It is important to note however that in the models predicting distress, goal violations had larger *b* coefficients than belief violations, suggesting that when it comes to distress, goal violations may be just as important, or more important, relative to belief violations. These findings are consistent with previous research demonstrating that goal violations are more closely linked to distress than are belief violations (e.g., Park et al., 2016; Steger et al., 2015).

Our secondary research question was to examine whether violations predicted meaning making independent of distress. Indeed, the pattern of associations between violations and meaning making did not change considerably when controlling for distress. Controlling for distress, belief violations was associated with positive reinterpretation, religious coping, and emotional expression; goal violations was associated with intrusive thoughts and emotional processing. Thus, there may be something about an experienced discrepancy between a stressor and one's beliefs and goals — apart from any distress associated with it — that may drive people to make meaning of the event (Park, 2010; Proulx & Inzlicht, 2012). This finding is consistent with experimental studies that have shown that violations can drive meaning making attempts without any corresponding change in affect (Proulx & Heine, 2008). The implication of this finding is that following stressors, even if the stressor is not causing any apparent distress, people may still try to make meaning of it. That is, discrepancy itself leads people to make meaning (Park & George, 2018).

Limitations of the current study must be noted. As a non-experimental study, the findings are vulnerable to alternative explanations. The study uses self-report measures, which are open to numerous confounding influences. The use of an undergraduate sample potentially limits the generalizability of the findings. Finally, the type and severity of stressors studied here are likely not representative of the general population. Therefore, future research attempting to

replicate these findings among more representative samples dealing with a wide variety and severity of stressors would be a crucial next step. Collecting more information about the nature of the stressor and its status (e.g., acute stressor that has passed vs. ongoing chronic stressor) along with prior stressful life experiences would also be beneficial. Further, among larger samples and longer time spans, it may be useful to examine trajectories in violations to identify those participants for whom violations do not decline over time, and to examine how this lack of resolution relates to clinical issues such as PTSD (Janoff-Bulman, 1989; Thompson & Janigian, 1988).

Conclusions

The present study sought to examine whether changes in belief and goal violations were associated with corresponding changes in distress and meaning-making among individuals who experienced a recent stressor. Results showed that, as expected, changes in violations were associated with corresponding change in distress and meaning-making. These results offer more robust evidence for a notion central to many theoretical and clinical approaches to adjustment — that violations of global beliefs and goals by stressors drive distress and meaning making (Janoff-Bulman, 1989; Park, 2010; Thompson & Janigian, 1988). Thus, stressors may not impact individuals equally; it is among individuals and contexts where belief and goal violations are the highest that stressors may have the biggest impact (e.g., a highly unexpected stressor; physical disability in an athlete). Further, reducing belief and goal violations should alleviate distress and reduce attempts to make meaning. Coping strategies (e.g., religious coping; Park, 2013) and interventions that help reduce discrepancies, such as cognitive-behavioral therapies or ACT, may help reduce the adverse impact of stressors. Our finding that violations had a unique association with meaning-making controlling for distress also suggest that individuals may be driven to make meaning of stressors independent of any distress they may feel (Proulx & Inzlicht, 2012). This finding raises the possibility that interventions that help people make meaning of stressors (e.g., cognitive processing therapy; Schumm et al., 2015) may be appropriate not just for those who are distressed but for those who perceive violations, regardless of their distress levels. Future work is needed to confirm this intriguing hypothesis and to inform interventions for those dealing with the aftermath of highly stressful or traumatic events.

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